

Highway Traffic Sound Walls

Can reduce the loudness of traffic noise by as much as half

Do not completely block all traffic noise

Can be effective, regardless of the material used

Must be tall and long with no openings

Are most effective within 61 meters (200 feet) of a highway

Do not increase noise levels perceptibly on the opposite side of a highway

Substantially reduce noise levels for people living adjacent to highways

What are Sound Walls?

Sound walls are solid obstructions built between the highway and the homes along a highway. They do not completely block all the noise; they only reduce the noise levels. Effective **sound walls** typically reduce noise levels by 5 to 10 decibels (dB), cutting the loudness of traffic noise by as much as one half. For example, a **sound wall** which achieves a 10 dB reduction can reduce the sound level of a typical tractor trailer pass-by to the sound level of an automobile.



Type– Concrete, I-20 east and westbound general purpose lanes, Augusta, GA*

How Does a Sound Wall Work?

Sound walls reduce the sound which enters a community from a busy highway by either absorbing the sound, transmitting it, reflecting it back across the highway, or forcing it to take a longer path over and around the barrier. **Sound walls** can be constructed from earth, concrete, masonry, wood, metal, and other materials. To effectively reduce sound transmission through the wall, the material chosen must be rigid and sufficiently dense. All **sound wall** material types are equally effective, acoustically, if they have the density.



Type– Metal, I-75 @ Moore's Mills Road, Atlanta, GA*



Type– Absorptive, www.whisper-wall.com*



Information Source: <http://www.fhwa.dot.ga/environment/keepdown.htm>

* Images are for illustrative purposes only